



Office of Nuclear Reactor Regulation

Reactor Oversight Process

CORNERSTONES **KEY AREAS Initiating Events** Monitors the occurrence of the events that could disrupt plant operations and challenge safety Mitigating Systems Monitors the function of the plant's safety systems designed to reduce the effects of initiating events. Reactor Safety Avoids accidents and reduces the consequences of accidents if they occur. **Barrier Integrity** Monitors the design barriers (fuel cladding, reactor coolant system, and containment) that protect the public from radionuclide releases caused by accidents or events. **Emergency Preparedness** Measures the effectiveness of the plant staff to carry out emergency plans to respond effectively to a possible accident. Occupational Radiation Safety Monitors the effectiveness of the plant's program to control and minimize radiation dose received Radiation Safety by plant workers. Protects both plant workers and the public from unnecessary radiation exposure **Public Radiation Safety** during routine operations. Measures the procedures and systems designed to minimize radioactive releases from a nuclear plant during normal operations and to keep those releases within Federal limits.

CROSS-CUTTING AREAS

Human Performance

Monitors the licensee's decisionmaking process, availability, and adequacy of resources to ensure nuclear safety, coordination of work activities, and personnel work practices.

Problem Identification and Resolution

Monitors the licensee's corrective action and operating experience programs, and the licensee's self and independent assessments.

Safety-Conscious Work Environment

Monitors an environment in which workers feel free to raise nuclear safety concerns without fear of harassment, intimidation, retaliation, or discrimination.

Plant Assessment

The NRC's plant evaluations are based on two distinct inputs:

Reactor Oversight

Process Framework

The U.S. Nuclear Regulatory Commission's

(NRC's) Reactor Oversight Process (ROP) is

the agency's program to inspect, measure,

performance of commercial nuclear power

plants. It also responds to any decline in

performance. The ROP monitors plant

and assess the safety and security

performance in three key areas.

- Findings from the NRC's inspection program
- Performance indicators (PIs) reported by the licensee

The NRC gives both PIs and inspection findings a color designation based on their safety significance.

Green: very low safety significance (for findings), expected performance (for PIs)

White: low-to-moderate safety significance

Yellow: substantial safety significance

high safety significance



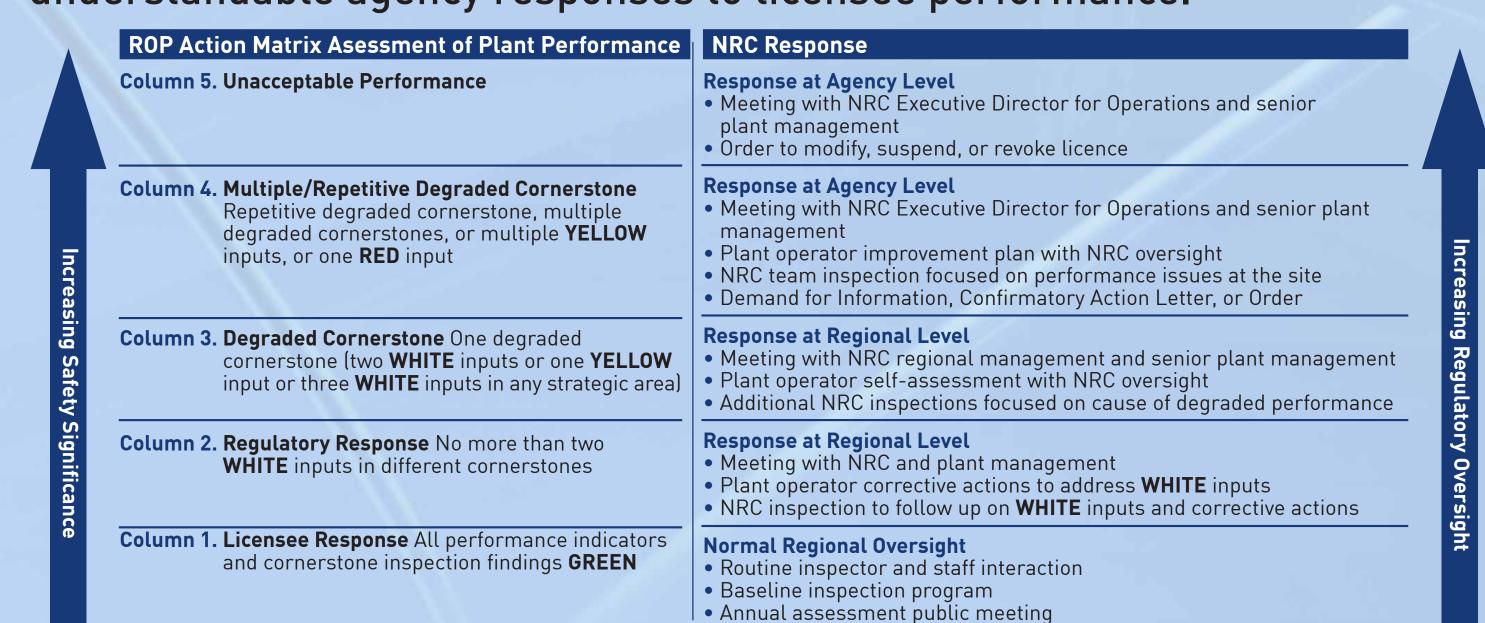
NRC Response to Plant Performance

Safeguards

Protects the plant against sabotage or

other security threats.

The NRC evaluates plant performance through performance indicators and NRC inspection findings to determine what action, if any, the NRC will take if there are signs of declining performance. This approach is defined by the ROP's Action Matrix. The Action Matrix provides consistent, predictable, and understandable agency responses to licensee performance.



Communications

The NRC assesses plant performance continuously and communicates assessment information through the performance summary public Web site for each plant. Information available through the plant's Web site includes the following:

Security

Monitors the plant's physical protection systems and ability to defend the plant against attack.

- Quarterly performance indicator data
- Significant inspection findings
- Inspection reports
- Assessment letters

Protecting Prople and the Environment

NOCLEAR NUCLEAR Reactors > Operating Reactors > Coversigle > Reactor Oversigle Process

Reactor Oversight Process (ROP)

Follow-up Inspection Reports at US Plants
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Recent ROP Activities

Risk-informed Framework for New Reactors – implementing Commission directives to develop appropriate revisions to the significance determination process and performance indicators for new reactors.

ROP Enhancements

- Assessment Program enhancing elements of the assessment program to better align NRC response to licensee performance.
- Baseline Inspection Program updating and revising baseline inspection procedures for effective and efficient oversight.
- Communications continuing to revise and develop communication products for public outreach about the ROP.
- Self-Assessment Program updating scope and approach to better assess ROP performance, including updated performance metrics.
- Significance Determination Process implementing recommendations to improve timeliness and efficient use of resources in risk-informed decisionmaking.

